

AMENDMENTS TO THE CLAIMS

1. - 14. (canceled)

15. (currently amended) A needleless injection device including a lower part receiving an agent cartridge and an upper part providing the energy needed for the injection, the upper part containing energy store units, including at least one start unit and at least one supplementary unit, capable of elastic form-change, the device further comprising:

a lock mechanism maintaining tension of the energy store units and a release mechanism for releasing the lock mechanism;

a tubular section of the lower part, provided with an external thread, extending into the upper part, the external thread coupling with an internal thread provided in the upper part, wherein the lower part is attached to the upper part in a revolving manner, and is movable telescopically within the upper part for producing a tension state of the energy store units; and

a spacer moveable independently of the at least one supplementary unit within the upper part, the spacer maintaining a uniform longitudinal space between the at least one start unit and the lock mechanism from the time the tension state of the energy store units is produced until the lock mechanism is released,

wherein:

the at least one start unit is capable of storing 60-90% of the energy needed for total discharge when incurring a reversible elastic distortion of no more than 25% of an internal length of the agent cartridge; and wherein

the at least one start unit includes a bundle of polyurethane springs fitted inside the device in a separate case; and

upon release of the lock mechanism, the spacer transfers without impact the stored energy from the springs of the at least one start unit via the lock mechanism through a piston to contents of the agent cartridge, the stored energy being transferred without striking another body against the piston and with the cartridge and piston rod being in

continuous contact during firing of the injection. ~~upon release of the locking mechanism.~~

16. (previously presented) The device according to claim 15, wherein the supplementary units comprise one of
- (a) as few as 2 and as many as 8 volute springs fitted coaxially in each other and surrounding the axis of the upper part and
 - (b) volute springs positioned symmetrically about the axis of the upper part.
17. (previously presented) The device according to claim 15, wherein the release mechanism comprises a release button situated at an upper end of the upper part and attached to a release rod that extends along the axis of the upper part to the lock mechanism.
18. (previously presented) The device according to claim 16, wherein the release mechanism comprises a release button situated at an upper end of the upper part and attached to a release rod that extends along the axis of the upper part to the lock mechanism.
19. (previously presented) The device according to claim 15, wherein a discharge hole in the agent cartridge is formed by an opening through the material of the agent cartridge.
20. (previously presented) The device according to claim 16, wherein a discharge hole in the agent cartridge is formed by an opening through the material of the agent cartridge.
21. (previously presented) The device according to claim 17, wherein a discharge hole in the agent cartridge is formed by an opening through the material of the agent cartridge.
22. (previously presented) The device according to claim 15, wherein a discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.
23. (previously presented) The device according to claim 16, wherein a discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.

24. (previously presented) The device according to claim 17, wherein a discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.
25. (previously presented) The device according to claim 18, wherein a discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.
26. (previously presented) The device according to claim 19, wherein the discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.
27. (previously presented) The device according to claim 20, wherein the discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.
28. (previously presented) The device according to claim 21, wherein the discharge hole of the agent cartridge is situated along the axis of symmetry of the agent cartridge.